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Editor
DELBERT OBERTEUFFER, Ph.D.
337 West Seventeenth Avenue
The Ohio State University
Columbus 10, Ohio

Executive Secretary
A. O. DeWEESE, M.D.
515 East Main Street
Kent, Ohio

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THE JOURNAL OF SCHOOL HEALTH

Devoted to the interests and advancement of school health service and instruction. Your participation by membership is solicited.

Vol. XXXI JUNE, 1961 No. 6

GUIDELINES TO SUCCESSFUL DENTAL HEALTH PROGRAMS FOR CHILDREN: PREVENTION*

WESLEY O. YOUNG, D.M.D., M.P.H.

Chief, Child Health Section, Idaho Department of Health, Boise, Idaho

The objective of a dental health program is either to prevent or control the attack of dental diseases. This paper will discuss prevention within the rather limited context of methods for reducing the occurrence of disease. Control measures, to prevent the progression of disease once it has occurred or to restore lost function, will be considered in the discussion of educational and treatment programs.

A complete dental health program attempts to deal with at least seven causes of dental disability: dental caries; periodontal disturbances; dentofacial deformities, such as oral clefts and malocclusion; oral cancer; dental fluorosis; and accidents which injure the teeth or supporting structures. The extent to which a preventive program should be concerned with each of these conditions is determined both by their relative importance as a cause of disability and by the availability of practical methods of preventing their occurrence. Oral cancer, for example, occurs with sufficient frequency among children to make its early detection and treatment of significant concern in treatment programs. However, no method of prevention is available which can be included in a dental

*Presented before a joint session of the Dental Health, Maternal and Child Health, Public Health Nursing, and School Health Sections, and the American School Health Association at the Eighty-eighth Annual Meeting of the American Public Health Association, San Francisco, November 2, 1960.

ANNUAL MEETING

The annual meeting of the American School Health Association will be held in Detroit, Michigan November 11–17, 1961.

The Headquarters Hotel will be the Pick-Fort Shelby, Detroit 26.

The meeting will begin Saturday morning, November 11 and the first general session will be Saturday evening.

All of the sessions except those in conjunction with the APHA will be at the Pick-Fort Shelby.

Members should make their hotel reservations early. All reservations must be made through the APHA Housing Bureau, 626 Book Building, Detroit 26, requesting the Pick-Fort Shelby.

health program. The same is true of the disfiguring dento-facial deformities.

An increasing number of dental health programs are emphasizing the control of diseases of the supporting structures of the teeth, the various types of gingival and periodontal disease. Gingival inflammation is a common childhood problem. Simple gingivitis, in contrast to the much less common acute gingival diseases, is rarely painful or disfiguring and does not, in itself, cause loss of teeth. It is, however, the forerunner of periodontal diseases (sometimes referred to as "Pyorrhea"), the major cause of tooth loss after the age of 35. (1) The overwhelming importance of these diseases in adults, as well as the fact that they frequently trace their origins to the simple gigivitis of childhood and the improper oral health habits developed during this period, make periodontal diseases an appropriate concern of dental health programs for children. Although no specific preventive measures are available to reduce the attack of gingival and periodontal disease, the individual who conscientiously maintains proper oral hygiene and who seeks regular dental care stands a good chance of avoiding serious impairment. Because of the lack of specific preventive measures, however, the control of these diseases must be assigned primarily to the educational and treatment phases of a dental health program.

Accidents are not common enough to pose a major dental health problem, yet the fact that many of them could be prevented by a modest expenditure of effort or money makes this form of accident prevention a logical part of a school health program. Intraoral mouthguards should be provided for all athletes engaged in contact sports. To protect the younger school-age child, consideration should be given to careful playground supervision (with particular attention to drinking fountains), the use of soft canvas seats for swings, and the elimination of teeter-totters.

Fluorosis, or mottled enamel, is another dental affliction which can be prevented. The causative factor, excessive fluorides in the drinking water, is clearly understood and its elimination will prevent the unsightly staining and pitting which characterizes the condition. Where it is impractical to remove excess fluorides from the community water supply, (because of the lack of an alternate source of water or funds to install a defluoridation plant), individual children may be protected by the utilization of special water formulas, or milk, containing only optimum amounts of fluorides during the first eight years of life. This is the period when the crowns of the permanent teeth are being calcified, the only time when staining can occur. Although dental fluorosis is not a major problem nationally, it is of prime concern in the more than 500 communities which have a water supply containing excessive fluorides. (2) The first priority for a preventive dental health program in these communities should be to assure that all children utilize water containing optimum fluorides.

Prevention of Dental Caries

The prevention of dental caries should be the major objective of a dental health program for children for two reasons. In the first place, effective and practical methods of prevention are available for this disease. Secondly, dental decay is the major dental health problem of children. Actually, dental caries is the most common chronic disease of man—a fact

of great significance in proper program planning, since no other type of public health endeavor is confronted with a disease of such universal nature. The high rate of occurrence of dental caries is particularly significant because of the cumulative nature of the disease. Like most dental afflictions, it is not self-resolving, nor can it be cured by advice or prescription. Unless treatment is sought from a dentist, the disease progresses and becomes increasingly more complex and difficult to treat. These factors, the high incidence and cumulative nature, are complicated by a widespread failure to seek treatment.

Dental caries activity requires the presence of four factors: fermentable carbohydrates, micro-organisms capable of breaking down these carbohydrates into acid, acids, and teeth susceptible to attack. (3) Although dental decay may be prevented by eliminating any one of these factors, the preventive procedures of major public health significance are those which reduce the susceptibility of the tooth to attack through the use of fluorine compounds.

Fluoridation. Water fluoridation is a classic example of the public health approach to disease control. More than three decades of brilliant epidemiological investigation have established its effectiveness and safety. This preventive procedure can be simply and inexpensively applied on a community basis to bring a marked reduction in dental caries attack of a magnitude of at least 60 percent, to the entire population who have received maximum exposure during a lifetime. Once adopted by the community, subsequent generations will experience a reduced caries attack without difficult changes in health habits or the exercise of personal initiative. (4)

The effectiveness of water fluoridation has been amply demonstrated, yet this procedure has not had the impact on the dental health problem that might be expected, simply because it has not been fully utilized. Despite a decade of effort to extend water fluoridation to all communities, less than 25 percent of the population now use water supplies containing optimum amounts of fluoride, and, because of population growth, the percent of the population not using fluoridated water is actually increasing. (5)

Several methods have been advocated to bring the advantages of water fluoridation to those who are not served by a community water supply. The use of individual fluoridators has proved feasible but the practical difficulties involved in reaching any sizeable number of people with this method have limited its use to a few selected locations. (6) The empirical use of supplementary dietary fluorides by prescription has been approved by the American Dental Association. (7) Theoretically, the use of fluoride tablets or water to which the correct amount of fluorides have been added should result in a caries reduction comparable to community water fluoridation. The limited studies that have been conducted, as well as the experience of practitioners who are using fluoride prescriptions, suggest that it is unlikely that any sizeable proportion of mothers will be willing to utilize dietary supplements faithfully, day after day, during the eight or ten years that a child should receive fluorides. (8)

Topical Fluoride Applications. Topical fluoride programs are the most feasible preventive method in areas where water fluoridation is not practical. This procedure, which legally can be used only by a dentist or

dental hygienist, is done in one of two ways. A series of four applications of a two percent solution of sodium fluoride may be given at intervals of two to five days. The series of applications is usually provided at 3, 7, 10, and 13 years of age, roughly corresponding to the time when new groups of teeth have erupted into the mouth. A more recently developed technique utilizes one application of an eight percent solution of stannous fluoride at six month or annual intervals. (9) Though no final determination of the relative merits of the four-application sodium fluoride and the one-application stannous fluoride method can yet be made, enough evidence has been presented to encourage use of the latter procedure by many dental practitioners and some health departments.

It should be recognized that topical applications of fluoride are a much less satisfactory public health preventive procedure than water fluoridation. They are less effective in preventing dental caries attack, both in actual percentage reduction and in lifetime effectiveness; they necessitate the active cooperation of the patient or his family; they require the utilization of professional personnel that are in short supply; and they are expensive, whether done in private practice or through a community program. Nevertheless, topical fluoride applications should play an important role in caries prevention in rural areas where fluoridation is impractical, in cities that have not yet fluoridated their water supply, and in areas where fluoridation has been adopted so recently that its benefits have not reached the entire child population. Unfortunately, this preventive procedure has not been widely used. Despite continued efforts to increase the utilization of this important method of prevention, only a small proportion of our population is now benefiting from its use.

Fuoride Dentifrices. The Council on Dental Therapeutics of the American Dental Association has recently recognized one particular toothpaste, and authorized the manufacturer to state that it has been shown to be an effective anti-caries dentifrice that can be of significant value when used in a conscientiously applied program of oral hygiene and regular professional care; and that it may also be of value as a supplement to public dental health procedures. (10) Although the studies available for the Council's evaluation were sufficient to indicate that this dentifrice was effective in reducing caries attack, they did not define precisely the magnitude of the reductions that can be obtained or the conditions under which maximum effectiveness may be anticipated. Additional studies will be necessary in order to determine the relative value of fluoride dentifrices in dental caries prevention. In the meantime, there appears to be no reason for hesitation in recommending their use since any preventive action, no matter of what magnitude, is desirable.

Toothbrushing. Regardless of any specific decay-preventing characteristic of a dentifrice, the mechanical action of toothbrushing should, in theory, assist in preventing caries activity by clearing sugars, microorganisms, or acids from the mouth. Laboratory evidence has indicated that, since the acidity of the enamel drops to a critical point during a period from a few minutes to two hours after the ingestion of sugars, toothbrushing can be of value only if done immediately after the consumption of food. Clinical studies have confirmed these findings. (11) Proper toothbrushing aids in controlling the attack of dental diseases, both of the teeth and the soft tissues, on an individual basis. However,

it was not proved to be an effective method of reducing dental caries attack in a population because the caries-inhibiting value of toothbrushing is limited, and perhaps more important, it requires a high degree of motivation and considerable personal initiative if an individual is to follow correct toothbrushing practices consistently.

Diet Control. The prevention of dental decay through dietary control of carbohydrates is even more difficult to apply, either in private practice or in community health programs. Theoretically dental caries activity is impossible if an individual adheres to a diet free from fermentable carbohydrates. Several studies have shown that dental decay can be reduced, in carefully selected patients, either by continuous use of a low carbohydrate diet or by periodic use of a regime in which carbohydrates are almost completely eliminated from the diet and then gradually reintroduced on a moderate scale. (12) The personal inconvenience involved in adherence to such drastic programs, however, makes it unlikely that any large number of individuals can be induced to utilize this method of prevention.

Guidelines

Three simple guidelines can be suggested for the development of successful preventive programs—the programs should give priority to the most important dental health problems, they should give priority to the use of the most effective preventive procedures, and they should be of sufficient scope to cover the entire child population.

As simple as they seem, these guidelines are not easy to follow. It is evident that dental caries is the most important dental health problem amenable to prevention, and that water fluoridation is the most effective procedure available for this purpose. Yet many communities without fluoridation are spending greater sums on treatment or educational programs than would be necessary to institute water fluoridation. It is also evident that community programs of prevention now provide very limited coverage since the majority of children are not now receiving the benefits of either water fluoridation or topical fluoride applications.

It may be helpful to review the development of an idea community preventive program which would assure the maximum reduction of dental diseases among children. Although local circumstances would affect the selection of priorities, the following components of a program, in order of their adoption, would represent a reasonable pattern:

1. The logical first step would be institution of water fluoridation (or defluoridation) to assure that all children living in the urban area would receive optimum fluorides.

2. Community topical fluoride programs next should be organized to serve all children in the urban area until the fluoridation program had been in operation long enough to assure maximum benefits, and to continue permanently for those children not using the community water supply.

3. Because of the relative ease with which it could be accomplished it might be desirable next to urge all parents to provide an approved fluoride dentifrice for their children.

4. Again, because of the ease of accomplishment, dental personnel should work with the athletic departments of the school to assure that mouth protectors were worn by those engaging in competitive sports.

5. Parents living in rural areas should be urged to utilize supplementary dietary fluorides, and mechanisms developed to assure the availability of these supplements.

6. School children should be taught correct methods of toothbrushing and oral hygiene.

7. Attempts should be made to motivate parents, and children, to reduce the consumption of refined carbohydrates.

8. Assistance should be provided school personnel to reduce the hazards of accidents, not connected with competitive sports, which may damage the teeth.

This description of an ideal program has been limited to methods of preventing the occurrence of dental disease. Obviously, regular dental care plays an important part in preventing the progression of disease but this subject is left to a later paper. Similarly, it is evident that a number of the preventive programs cannot be instituted without an aggressive educational program. Even in the narrow context of the prevention occurrence of disease, few communities approach the degree of comprehensive coverage that has been outlined. Few, if any, can boast of a complete program of prevention, education, and treatment.

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GUIDELINES TO DENTAL HEALTH EDUCATION PROGRAMS FOR CHILDREN*

ELIZABETH M. WARNER, R.D.H., M.P.H.

Division of Dental Public Health and Resources, U. S. Public Health Service, Department of Health, Education and Welfare Washington, D. C.

In spite of conscientious efforts in health education, each of us can recount incidents in which well-meaning intentions have produced unexpected and even detrimental outcomes.

For example:

The pretty little girl made miserably unhappy because she was not even considered in the competition for the "Best Smile Contest." She was undergoing orthodontic treatment and the unsightly braces on her teeth ruled her out, at first glance.

Or the little boy, embarrassed and hurt because he was unjustly accused of neglecting to brush his teeth by a teacher who did not recognize that removal of the stain on his teeth required professional treatment and that he could not meet the objective which she had set for him, by himself.

And then there was the little girl who kept crying hysterically after a playground accident in which two front teeth had been fractured, "But it couldn't have happened because I use toothpaste that makes a shield in front of my teeth."

Two of these incidents were prompted by well-meaning motives, of the highest type; one represents a popular present day media of communication, sincere or not—the point is that all three of them back-fired.

An introspective look at such negative outcomes of health education efforts can lead to more perceptive meanings for long-established guidelines for health education. No claim is made for the originality of these guidelines—many people have been saying them for many years. My objective will be to sharpen the focus on their implications for dental health education.

The first guideline concerns setting goals for dental health achievement among children. In dental health, as in most other aspects of health, all children cannot meet a single, ideal standard. Too many factors, which the child, the parents, or even the dentist cannot control, determine dental health status in all its ramifications of health, well-being and aesthetics. Heredity, the socio-economic level of the family, and the availability of dental care can be either assets or handicaps to a child's dental health status. Rather than setting a standard goal for all children, dental health education should aim toward helping each child achieve his own, individual, highest potential for dental health, whatever that may be.

Recall, here, the little girl who was excluded from competition in the "Best Smile Contest" because she was wearing orthodontic appliances. How inconsistent it is when the means to help a child reach a higher level

*Presented before a joint session of the Dental Health, Maternal and Child Health, Public Health Nursing, and School Health Sections, and the American School Health Association at the Eighty-eighth Annual Meeting of the American Public Health Association, San Francisco, November 2, 1960.

of dental health constitutes a handicap in an alleged dental health education activity.

Any type of activity which emphasizes comparison has very limited usefulness in dental health education programs for children. Too much depends upon factors over which the child has no control, and achievement means too many different things. A better approach is to make personalized dental health recommendations and to commend, on an individual basis, for whatever improvement is achieved, whatever good is maintained, or whatever bad is averted.

Educators have recognized the contra-indications of health contests for many years. The dental health competitions, of various types, which still are staged, are seldom initiated by educators. However, health departments and schools probably are amiss in not being ready with alternate plans when community groups, notably dental societies, propose "Best Smile Contests." I recall an instance in which a local dental society was persuaded to provide mouth guards for all children engaged in contact sports in the city's schools with the funds which it originally had designated for a "King and Queen of Smiles" contest.

Another guideline concerns the selection of dental health information for health education programs for children. Obviously, it should be scientifically accurate and up-to-date. In addition, it should be information for which the child, at his particular age, has understanding and functional use.

The young child with his self-centered and short-range goals will be most interested in dental health facts and practices which have usefulness for him, as an individual, today. For example, the seven-year old child, who is entering the period of mixed dentition, losing primary teeth and erupting permanent teeth, will be interested in a simple explanation of what is happening in his mouth.

On the other hand, the teen-ager with a growing awareness of his impending responsibilities in society and business, probably will have interest in the aesthetics of dental health with all its implications for his future social and vocational success.

While it is true that many dental problems persist throughout childhood, developing maturity brings new aspects of the basic dental problems. There are many opportunities for progression in dental health education programs for children. Each age level brings new things for a child to know about dental health along with a broader potential for comprehension.

Even though all health teaching, including dental health education, should be as interesting as possible, the true meaning of the intended message must not be lost. The palatable coating which surrounds the dental health fact should not so absorb the child's interest that his mind is distracted from the real issue. The long recognized fact that interesting children is sometimes confused with entertaining them is illustrated by the experiences which teachers relate about reactions of some children to health stories based in fantasy. I remember one such unexpected reaction of a first-grader to a dental health film in which the cast consisted of dogs dressed up like people. His awe-struck comment, after seeing this so-called dental health film, was, "Did you know that dogs could walk around on their hind legs all the time, if they want to?"

It might be argued that this misinterpretation could have been avoided if the teacher had prepared her class for the dental health film—if she had used the film as an enrichment to, rather than as a substitute for her own teaching. This may be true, but too liberal mixing of fantasy with fact still is likely to create confusion in the imaginative minds of young children. By contrast, I recall the meaningful discussion which took place in a second-grade classroom following the showing of a dental health film which effectively combined interest with fact. Rather than using walking, talking dogs, this film told its dental health message through pleasant, but everyday experiences of an average family. Almost any child could find the basis for relating to the situations depicted in this film without being so carried away by bizarre phenomena that the dental health message was lost.

Also, the analogy which is designed to clarify a point should not confuse it, instead. Analogies, somewhat like sarcasms, frequently are wasted or misused on children who are likely to take words literally. Recall, here, the cruel misconception created in a little girl's mind by a popular toothpaste advertisement appearing on television.

The influence of present day advertising on the dental health knowledge and practice of children cannot be ignored. TV commercials for toothpastes are more likely to be quoted by children as sources of dental health information than are dentists, teachers, parents, or health textbooks. What can be done to combat this growing torrent of pseudo-dental health education?

In many cases, ridicule would be an easy way to dispose of misleading advertising. But, a more sound and reliable approach is to capitalize on the interest generated by the eye-catching commercial to point out its errors and present the true facts of the case. If children can be taught to analyze health information to which they are exposed, to discriminate between reliable and unreliable sources of health information, and to know where to go for accurate, up-to-date health facts, an important life-long health education goal will have been achieved. Obviously the skills involved in thinking objectively become more highly developed with maturity but opportunities should be planned for even young children to think critically about dental health information.

Closely related to the need for accuracy in dental health education programs for children is the contention that both the facts of dental health and the motivations for dental health practices should have potential for carry-over into later years. In other words, these facts and motivations should be as reasonable in adulthood as in childhood.

This does not mean that new information and depth are not added to an individual's knowledge of and incentive for dental health as he progresses in understanding. However, whatever basic idea or motive for good dental health was acquired in childhood should have application and validity throughout life.

Some of our dental health education efforts do not stand up very well under this test: a row of gold stars for having brushed your teeth all week is not a very strong motivation for maintaining oral hygiene at age 20. And once you get past the age where you entrust Christmas to Santa Claus, it becomes increasingly difficult to believe that there really are little men, equipped with pick-axes, who make the rounds of your teeth, looking for places to dig.

By contrast, a mouth which looks and feels clean is as good a reason for brushing your teeth at age 40 as at age 6. The fact that by age 40 you may have added some more sophisticated reasons for toothbrushing, such as maintenance of the periodontal structures, does not invalidate the first learned concept of a clean mouth, for its own sake.

Another principle which has practical application for dental health education is that children learn from the environment around them. This implies that the child's environment at home, at school and in the community should provide opportunities for living which augment and confirm the dental health teaching to which he has been exposed. Consider then the inconsistency of candy vending machines in the halls of the same school which teaches in its classrooms that excessive sweets are detrimental to dental health.

Children also learn from example and, in fact, strive to emulate people whom they like and respect. Certainly, then, all persons teaching dental health to children should exemplify, in appearance and practice, the facts and habits which they are encouraging children to adopt. For adults, as for children, this does not necessarily mean a smile which could qualify for a toothpaste advertisement, but it does imply a clean mouth in a good state of dental repair and maintenance. The implications for dental health education in this principle are myriad; they apply to learning experiences in the home as well as in the school, and also in the dental office or clinic.

Almost everyone has personal feelings and biases about the primary importance of some particular health fact or practice. Unconsciously, these personal feelings are likely to produce blind spots in health teaching which result in neglect of other and perhaps more important dental health information. I recall a teacher I met in an in-service training program who felt that a mouthwash which he referred to as "TS–70", was a type of cure-all for most dental problems. In view of his enthusiasm for the product, I would imagine that his students received a misleading impression of the value of mouthwashes, particularly "TS–70", in relation to dental health.

I suspect that the importance which I place upon saving six-year molars, above all else, may approximate a personal bias. I like to think that I could never go wrong with such an obviously first priority. But what if the gum-boil opposite a child's first primary molar escaped detection because of my preoccupation with the condition of his six-year molars?

If I were to use my imagination in the incident of the little boy, embarrassed by a teacher's exaggerated concern with the stain on his teeth, it wouldn't be difficult to suggest a concomitant. In the teacher's preoccupation with the child's stained teeth, two permanent molars, decayed beyond restoration, completely escaped notice.

There's one other health education principle which was violated in that particular incident. Health teaching should never place a child in an embarassing position or leave him open to the disparaging remarks of other children. Berating a child, particularly about health problems which he cannot solve through his own efforts, is not only an unproductive activity, but it may lead to complete avoidance of any health education projects which he suspects may result in a repetition of the distasteful experience.

An elementary school principal told me about a little girl who went home every time she saw the school nurse entering the building. She was afraid the nurse might be coming to her room to do health inspections and she didn't want the nurse to ask her, again, within earshot of the other children, "Didn't you tell your mother that you need to go to the dentist?"

To this point, this discussion has been concerned with guidelines for dental health educational programs directed specifically to children. However, since the dental health status of a child is determined so largely by the actions of adults responsible for his welfare, the dental health education program also must influence the thinking and actions of adults. Parents, particularly, but also health workers, teachers, and others closely associated with children, need to be made aware of the seriousness of children's dental health problems, the irreversible nature of tooth decay, and the importance of early and regular dental care.

Unless some adult assumes responsibility for securing necessary dental care for a child during the crucial, formative years, it is likely that, by age 18, he already will have lost his chance for good dental health for the rest of his life. Probably some of you in this room have had occasion to feel cheated by the older generation when you have been faced, in adulthood, with the compounded effects of dental problems neglected during your childhood.

Parents, teachers, school administrators, and health personnel obvioulsy need to be targets of dental health education efforts if the dental program for children is to succeed. But health education needs to reach out to the entire community if some of the most important goals of the dental program are to be achieved.

The establishment of community sponsored dental clinics is one such goal. Even though dental care is primarily the responsibility of families, there are conditions under which the entire community must share the responsibility for providing dental care for some of its children. Successful operation of community dental clinics is dependent upon the understanding support of a responsible citizenry as well as the intelligent utilization of the services by informed children and parents.

Probably no other aspect of dental programs for children has proved to be such a challenge for health education as fluoridation of community water supplies. An entire session could be devoted to the role of health education in securing fluoridation for communities. In this day and age, the benefits of fluoridation ought to be the birthright of every child. But, like dental care, this health service for children is dependent upon the action of adults. Hopefully, one of the results of health education programs for today's children will be a generation of informed adults who will take positive action to protect the health of their children.

Many people participate in the dental health education experiences of children. Certainly, many frustrations are encountered but there are occasional rewards, too.

The observant teacher who encouraged a child to overcome a beginning mouth habit must have a good feeling of satisfaction to know that she may have helped that child avoid possible malocclusion.

The elementary school principal who made it possible for a young boy and his proud immigrant parents to accept needed dental care, with

understanding and dignity, must feel some personal pride when he sees this boy launched on a successful career, unhampered by dental defects which would have detracted from his personal appearance.

There must be hundreds of public health nurses and school nurses who experience small personal victories each time one of their home visits results in an informed parent who takes action to secure needed dental care for a child.

These are the kinds of things of which dental health education programs for children are made. Don't let your own similar experiences go by without an introspective backward look. Learn from the mistakes and allow yourself enough gratification from the successes to make it worthwhile to continue.

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A TEN-YEAR FOLLOW-UP STUDY OF PRACTICES IN HEALTH INSTRUCTION FOR BOYS IN THE PUBLIC SECONDARY SCHOOLS OF OHIO

RICHARD T. MACKEY, Ed.D.

Associate Professor, Physical Education, Miami University, Oxford, Ohio

There are three essentials necessary to the improvement of the health of people in our society. These essentials are: scientific discovery; the provision of medical services; and finally, health education or health instruction. Ray Lenart, Health Education Consultant with the District Public Health Office in Dayton, Ohio offers this description of health education: It is "changing what people think and do about health." What have we been doing in our secondary schools to "change what students think and do about health?" What changes have taken place in our instructional programs in recent years? The desire of the State Planning Committee for Health Education in Ohio to discover answers to these questions lead to this study. Miami University, through its Faculty Research Committee and Alumni Loyalty Fund; and the State Planning Committee provided research grants for this undertaking.

Purpose of the Study

The purpose of this study was: (1) to determine what the public secondary schools of Ohio were doing with respect to the teaching of health to boys. Little attempt was made to evaluate the effectiveness of the health instruction programs but rather the objective was to determine the actual practices in use; and (2) to determine what changes have taken place in the ten-year period 1950–1960. The current study utilized copies of the identical questionnaire which were mailed to the schools in the 1950 survey. Responses were received from approximately fifty-four per cent of the schools in 1950 while nearly eighty-one per cent were represented in the 1960 follow-up. For purposes of analyzing the data, the schools were divided by size, as defined below, and also by type; senior, junior senior, and junior high schools. Wherever possible, statistical measures were employed to gain valid insights into comparisons of findings.

Definition of Terms

Clarification of certain terms used in this study made it desirable to include the following definitions:

Health Instruction. This means the sum of instruction given within the curriculum which has for its aim the improvement of health conduct of the individual. Many subjects, departments and other phases of school life contribute to this instruction. Within the curriculum itself the instruction could be given directly in organized health classes or it could be offered in integration and correlation with other subjects.[1]

Small Schools. Defined as schools having a total pupil enrollment of from 1 to 250 pupils.

Medium Schools. Defined as schools having a total pupil enrollment of from 251 to 750 pupils.

Large Schools. Defined as schools having a total pupil enrollment of 751 pupils and over.

Current Status of Health Instruction Practices

These findings should be of interest to school administrators, health teachers, college personnel who prepare health teachers, and state supervisors of health, as well as all other persons engaged in improving the health status of our youth.

Organization and Administration: Although the State Department of Education recommends that health instruction be required for a full year during the last four years of school, only 72.6% of the reporting schools required a course in health.[2] An additional 10.8% offered health as an elective. The remaining 16.6% neither required health nor offered it as an elective. With respect to the senior high schools and the junior-senior high schools, as the size of the schools decreases the percentage of schools requiring health becomes less.

Although there is no consistent pattern regarding the number of periods per week health instruction is offered, it is interesting to note that

[1]Alma Nemir, *The School Health Program.* (Philadelphia: W. B. Saunders Co., 1959), p. 341.

[2]*Ohio High School Standards in Health, Physical Education, Recreation and Safety.* (Columbus, Ohio: State Department of Education, 1949), p. 46.

41.0% of the schools teach health five periods per week. This concentrated approach to teaching health is in keeping with modern trends in health instruction procedures.

Regarding the way in which health is taught, 76.1% of the schools offered it as a separate course while approximately 22.8% taught it as units in other courses. It was integrated in the curriculum in 13.7% of the schools.

Responses to the question pertaining to the type of pupil classification used in assigning students to health education classes revealed that there has been little provision made for homogeneous grouping. Classification by grade was the most common method used while placement tests and ability grouping were used in less than 1.0% of the schools.

The schools are about evenly divided regarding the practice of segregating boys and girls for health instruction. Regardless of whether the boys or girls are taught separately or together the health teachers are more often men than women. This is true regardless of the size or type of school.

With few exceptions (5.0%) academic credit is given for courses in health. Over half of the schools give separate credit for health while approximately one-third of the schools combine the health credit with physical education. The State Department of Education provides for both of these methods of granting credit for health. A further recommendation of the State Department is that one-half credit in health be required for graduation. Only 57.2% of the responding schools are complying with this recommendation.

Special health classrooms are provided for health instruction in 19.0% of the schools while 64.3% use the usual available classroom. The gymnasium is used by approximately 10.0% of the schools.

Instruction Program: A little over one-fourth of the schools use a course of study prepared by a local school committee while nearly 60.0% of the schools use those prepared by individual teachers.

Textbooks are used by 72.6% of the responding schools. Workbooks or guidebooks (15.2%) were also included in instructional materials used. Teaching aids included the motion picture projector (83.4%); the slide projector (62.1%); wall charts (73.2%); and the blackboard (80.4%). It is interesting to note that the use of the motion picture projector is more prevalent than the commonplace blackboard.

The school health exam, visits by school nurse, selection of food in the cafeteria, safety in shops and playfields and intramurals were some of the activities which were used in developing incidental health instruction.

Approximately one-third of the schools used students' health questions as a means of gearing instruction to students' needs. However, almost one-third of the respondents indicated no specific efforts were made to gear instruction to students' needs and interests.

The natural association of biology and health was evident in this study. Units of health were taught in biology in 77.4% of the responding schools. Social Studies included health units in 18.4% of the schools while units in all other courses occurred less frequently.

The principal state, county or local agencies which aided the schools in the health instruction program were: Board of Health (52.7%); American Red Cross (40.6%); Heart Association (30.0%); Tuberculosis

Association (30.0%); Cancer Society (32.6%); and the Dental Association (25.1%).

The primary means of determining student achievement is the teacher-constructed test (65.9%). Standardized health knowledge tests are used in less than 10.0% of the schools.

The health teacher (70.5%) and the schools nurse (35.0%) are most often the persons who orient the students concerning the purpose and value of the school health examination.

Slightly less than 10.0% of the schools have organized a school health council.

Regarding sex education or family living, approximately 45.0% of the schools provided instruction for all students while slightly less than 30.0% did not include such instruction. Instruction in this area was usually included in units in the health course or in units in other courses rather than as a separate course. In a few schools sex education was presented through special lectures. The health teacher was most often the teacher who taught this phase of health with the home economics teacher, biology teacher and physical education teacher following in that order.

Personnel: The supervision of the health teachers was done most often by the principal (59.9%). Supervision by a health education supervisor, physical education supervisor, or physical education department head was done in 23.0% of the schools. In 11.4% of the schools no supervision of health teachers is done.

Regarding the educational preparation of the health teachers, 70.4% hold the Bachelor's degree, 28.4% hold the Master's degree and one teacher with a doctorate was reported. Of the 1527 teachers included in this study just 15 have less preparation than a Bachelor's degree.

A question regarding the area of college preparation revealed that the combined health and physical education major is most common (48.5%). A physical education major was the preparation of 19.5% of the health teachers. Just 3.4% of the teachers had majored in health education. The health minor, physical education minor or combined minor was the preparation of 20.2% of the teachers. Teachers without a minor or major in health or physical education included 6.9% of the total group.

In comparing the per cent of the health teachers' total teaching load spent in teaching health the following was discovered: 72.1% of the teachers had less than one-fourth of their total load devoted to health teaching; 15.2% had between one-fourth and one-half of their total load devoted to health; and health teaching comprised more than half of the total load for 12.7% of the teachers.

Physical education (44.9%) was the subject, other than health, which was most frequently taught by the health teachers. Science was taught by 14.6% of the teachers while biological science was taught in 12.6% of the cases.

Duties of the health teacher, other than classroom teaching, include: coaching (41.0%); intramurals (19.9%); school clubs (13.7%); and school recreation (9.3%).

Changes Which Have Occurred During The Ten-Year Period 1950–1960

Unless indicated otherwise all of the differences reported here are statistically significant at the 1% level of confidence. One limiting factor

in comparing data from the two studies is the fact that the 1950 study was based on a questionnaire return of approximately 54%.

The results of the data comparison is as follows:

1. There is a 7½% increase in the number of schools requiring all students to take a course in health.
2. There is a definite trend towards offering health on the concentrated plan (5 days per week).
3. More schools are teaching health as a separate course and fewer integrating it in the curriculum.
4. There is an increased number of schools giving credit for health, both as a separate credit and combined with physical education.
5. There is a 20% increase in the number of schools meeting the State Department of Education recommendation of requiring one-half credit in health for graduation.
6. The provision of a special health classroom is increasing (difference significant at the 5% level of confidence) with a pronounced drop in the use of the gymnasium for health instruction.
7. The use of health textbooks has increased almost 25%.
8. The motion picture projector and the slide projector are being used by an increasing number of schools.
9. Fewer health units are being taught in social studies and more are being taught in biology.
10. Schools are making increased use of voluntary agencies such as heart associations, cancer societies, the Red Cross and dental associations.
11. The number of school health councils reported in 1960 was 83, as opposed to 57 in 1950. Although not statistically significant, this increase is noteworthy.
12. More students are receiving instruction in sex education.
13. There is an increased tendency for the sex education to be taught in the separate health course rather than in other courses.
14. There is an increased tendency for the principal to supervise the health teachers. In addition, more supervision is being done in 1960 than was the case ten years previous (difference significant at the 5% level of confidence).
15. A greater percentage of todays' health teachers have a Master's degree (difference significant at the 5% level of confidence).
16. The preparation of the teachers in health and physical education remained virtually unchanged. The greatest percentage of them had the combined major in health and physical education.
17. Todays' health teachers have a smaller proportion of their total teaching load devoted to health teaching.
18. A greater percentage of the health teachers have coaching included in their duties.

Conclusions

Professional personnel in the fields of health and education often labor without really knowing the results of their efforts. Is progress being made? Is there evidence of backsliding or is the status quo being maintained? The results of this study provide some of the answers insofar as health instruction in Ohio's public secondary schools is concerned.

An examination of the findings leads to some interesting conclusions.

The health instruction programs in Ohio's secondary schools appear to be improving. This is evidenced by: closer adherence to State Department of Education standards; more direct health teaching; and a more concentrated approach to the teaching of health. The latter two trends are in line with the thinking of many health education authorities. Further evidence of health instruction improvement takes the form of increased use of textbooks, audio-visual aids, and the resources available through voluntary health agencies. While the use of such teaching aids does not guarantee superior instruction, it is true that the effective health teacher will employ several means to gain the students' interest.

Despite these changes in health instruction practices which might well be called signs of progress, Ohio's health educators should not be complacent. Some schools are not complying with State Department of Education recommendations. There are all too few health councils in operation in the schools. The diverse teaching and extracurricular assignments of the health teachers indicate a lack of opportunities for one person to coordinate the total health program. College and University teacher preparation personnel in Ohio are already beginning to ask themselves this question: What sort of curriculum can we devise which will adequately prepare a person to coach athletic teams; conduct intramural programs; carry on noon-hour recreation; sponsor school clubs; and teach various academic subjects including health? Certainly, public school administrators need to be concerned with this "division of labor." Which part of the job gets slighted and in which direction do the major efforts go? These are but some of the questions which must be answered if our health education programs are to continue to move forward.

* * * * *

"HOW WE DO IT"

ARTHUR L. HARNETT, ED.D., EDITOR

Teaching For Health In A Methods Course at Grambling College

In many instances college and university seniors are pushed into the important role of student teacher. Many have failed or become somewhat discouraged during the first few weeks because of the lack of practical experience at the college classroom level. It goes without saying that most of the experience these students receive is that gained in the basic Health Methods course. However, it is also recognized that a few students in exceptional situations do get a practical introduction to teaching for health. We have tried to give our students this type of instruction here at Grambling.

At the beginning of each semester we suggest that each student investigate several health topics he or she would like to teach. The teaching of a 15 minute health lesson is a course requirement. The teaching selection has to conform to the particular grade level the student will teach in the public school. Classes consist of elementary education and physical education majors.

During the first seven or eight weeks the instructor lays the groundwork through instruction in philosophy and principles of health education, mechanics of curriculum and lesson plan construction, methods and materials for the teaching of Health.

At about the end of the eighth week we set up a teaching schedule making sure that no single topic is duplicated at any particular grade level.

As we cover the growth, development and health interests, needs, and abilities of pupils at various grade levels we also analyze and synthesize many of the classroom characteristics of these pupils. We try to recognize the things they might ask, say, or do.

The actual teaching of the health lessons in class converts the vast amount of acquired health theory into simulated practice. The class instructor demonstrates the use of each teaching method covered before student-teachers present their lessons to the class. As each student-teacher presents his lesson, all other students and the class instructor try to act as though they were pupils of the particular grade being taught. In other words, if a student-teacher were teaching a fourth grade lesson all others in the room would assume the role of fourth grade pupils. Upon completion of each lesson standard instructor-appraisal forms are scored for the student-teacher by all in the room. Immediately following, the lesson is thoroughly criticized. Appraisal covers many factors including poise, method and content appropriate to the grade level being taught.

We have found the following concerning this procedure:

1. The simulated teaching situation is quite stimulating. (Students enjoy it.)
2. The student-teacher feels compelled to do his best in front of his critical peers. (Usually does.)
3. The student-teacher is introduced to handling the type of questions pupils of a particular grade level would ask.
4. The student-teacher gets the experience of handling disciplinary problems in the classroom.
5. All students in the class get the benefit of the criticism of each presentation.
6. All students get the limited experience of playing the role of pupils at each grade level in a teaching situation.
7. Teaching time for each student-teacher lesson can be determined by the total number of students in class.
8. Role-playing can become meaningless unless well regulated by the class instructor.

We highly recommend this procedure to health educators in colleges and universities. Though the teaching time is relatively short many benefits accrue. We have found that the procedure has vitalized and made our Health Methods courses more meaningful to our students.

ROBERT H. KIRK, H.S.D.
Asst. Prof. of Health Education

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VITALIZING HEALTH INSTRUCTION FOR FRESHMEN

MAUDE J. YANCEY

Professor of Health Education, Southern University, Baton Rouge, Louisiana

The global conflicts of our day have highlighted the importance of health education as an integral part of general education. This increased attention to education in health is evidenced by recent work of leading educational and medical organizations and organizations such as the Educational Policies Commission[1] and the President's Commission on Higher Education[2] which have emphasized the importance of health as a major objective of general education.

An excellent opportunity to attack the problem of improving health education in the general education program at Southern University arose when the rapidly increasing college enrollment with its many attendant problems prompted the President of Southern University to appoint a committee to formulate plans for the improvement of instruction. This committee, known as the Committee on Freshman Studies, was composed of representatives from all of the areas of the University. After studying general education programs in various institutions and examining the findings of faculty studies on the nature of the freshman student at Southern University, goals of the freshman program were established. One of the sub-committees appointed to formulate means of achieving these goals was the Health Education Committee, consisting of members of the Health and Physical Education Staff with representation from the areas of Biology, Home Economics and Social Science.

The Health Education Committee had the task of setting up plans for providing functional health instruction for Southern University freshmen. The Committee met weekly and:

1. re-examined the goals of the freshman health course,
2. studied health courses in general education programs of various institutions,
3. made a study of the health beliefs and knowledge of freshmen students entering Southern University.

New insights resulting from the above activities showed the need for a revision of the freshman health course.

Redefining Goals

The first task in revising the course was that of redefining and restating objectives in terms of the goals of general education and the needs of the Southern University student. Some of the objectives accepted after group discussion were as follows:

1. to provide the student with basic scientific principles and facts necessary to the recognition and solution of individual, family, and community health problems,

2. to help the student evaluate critically health data and advertisements so he can be an intelligent consumer of health products and services,

[1]Educational Policies Commission, *Policies for Education in American Democracy* (Washington, D.C.: National Education Association, 1946).

[2]President's Commission on Higher Education, *Higher Education for American Democracy* (New York: Harper and Brothers, 1947).

3. to acquaint the student with community resources available for the promotion of healthful living.

Selecting Course Content

The Committee then considered the content, methods, experiences, and materials needed to realize the objectives. It was agreed that for most students the achievement of the goals would require an understanding of the importance of being healthy and the ways of promoting health through physical activity, prevention and control of communicable and non-communicable diseases, mental hygiene, better social adjustment, and good nutrition.

Committee consensus on goals and content resulted in the development of a syllabus in which each of the mentioned areas was considered as a problem unit.

Devising Teaching Methods

A major concern of the Committee, as reflected in the objectives, was the development of critical thinking in relation to the promotion and maintenance of health. Because of this interest, it was felt that the methods used should call for the greatest possible student participation.

Some of the methods and activities suggested for the course were discussions following film showings and lectures by resource people from health agencies, class projects such as the conducting of a campus educational and fund raising campaign for one of the health agencies, and evaluation of health advertisements printed in the daily paper.

The Committee suggested that many of the activities engaged in by the students be used as a means of evaluating their progress in terms of the stated objectives.

Testing the Course Plan

Through the cooperative effort of the Committee members, the course plan was completed and used experimentally in two sections of the freshman health course. These experimental sections were taught by one teacher with other health teachers observing at regular intervals. Periodic meetings with the health teachers were held for the purpose of discussing the "why", "what", and "how" of the instructional process. This procedure revealed certain weaknesses in the tentative plan, which were corrected, and also gave the faculty new understandings of student needs and teaching procedures. During the following semester all freshmen health classes used the revised plan.

Measuring Student Progress

The problem of evaluating student progress in terms of the stated goals was a major concern of the staff for approximately twelve months. Many devices for measuring health knowledge, attitudes, and abilities were suggested, such as student self-appraisal forms, writing of short themes, group and individual projects and paper-pencil tests.

Following is a description of the procedure utilized in the construction of a cooperative final examination. This is illustrative of the team approach used by the staff in attacking the problem of evaluation.

1. Selected references on evaluation were studied and guiding principles in setting up evaluation procedures were stated by the group.

2. The objectives of the freshman health course were re-examined, re-defined, and stated in terms of measurable attitudes, practices, and knowledges.
3. The group agreed to begin their evaluation program by constructing a cooperative test designed primarily to measure knowledge and attitudes.
4. The areas of knowledge to be tested and the specific objectives related to these areas were agreed upon by the group.
5. Each teacher submitted test items which were either accepted or rejected by the group.
6. The final test was constructed from the items approved by the group and the test was administered at the end of the semester.

One of the major problems confronting the Health Education Committee was the evaluation of changes in health practices. It was realized that the solution would require further study and cooperative planning with the Personnel Department and other related areas of the University.

Faculty Growth as an Outcome of the Group Approach

The group has been encouraged by the test results and the response of the students to the program. In addition, the group efforts described above led to a reorientation of thinking on the part of the group members and the acquisition of new insights into and understandings of the Southern University student. The free exchange of diverse opinions and ideas has contributed to professional growth on the part of the instructors involved and to the development of a common point of view on the goals of education in health. Further, the opportunity to work in the group helped the members to acquire a deeper sense of belonging to the total education endeavor of the University. Along with this has come a feeling of group pride in the work that has been accomplished.

These benefits, which may be thought of as by-products of the Committee's action, could have been achieved only in a permissive atmosphere. The group worked in a threat-free climate. There was a constant sharing of opinions and divergent ideas. Thus the group served as a target of change as well as an instrument of change. This group process involved everyone actively engaged in the health instruction program as well as many others working in related areas. This "we approach" which leads to an "our result" eliminated many problems inevitable in the "I approach" culminating in a "my result."

With the same cooperative spirit the Health Education Committee will continue to revise the course and to devise evaluation procedures so that the instructional program in health will result in the development of favorable health knowledge, attitudes, and practices in the lives of our students.

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NEW TEACHING AIDS

DONALD BOYDSTON, ED.D., Editor

DENTAL HEALTH (Film)

This film, called "How and Why," is a review of the research that has been done to promote better dental health. It is 11 minutes in length both in black and white and in color. It presents an up-to-date report on diet and its relation to growth and decay of teeth, data on new sodium fluoride applications, and the latest techniques of oral hygiene. The film was awarded the Seal of Approval of the American Dental Association. For intermediate grades and junior high schools. Free on rental basis to teachers. Coronet Instructional Films, Coronet Building, Chicago 1, Illinois.

TOBACCO (Pamphlet)

This pamphlet is titled "Cigarettes and Health." In this publication, views based upon 13 years of cancer research are expressed, as well as extensive reviews of the scientific literature. With a brief introduction, the headings, as listed, are: "What do we know about smoking?"; "Chemical and biological evidence"; "The 'smoker personality' "; "Harvard studies"; "The future"; "Search for addictive elements." Public Affairs Pamphlet. Single copies 25 cents. Special quantity rates. 22 East 38th Street, New York, N. Y. 20 pp. 1960.

NUTRITION (Brochure)

This brochure, titled "Animal Feeding Demonstrations for the Classroom," explains clearly some tested procedures for conducting animal feeding demonstrations with pupils in upper grades through high school. These demonstrations can be effective in challenging boys and girls to the importance of diet for growth, energy and general health. Two demonstrations—The Value of Milk and The Value of a Well-Chosen Diet, as well as suggestions for other demonstrations are presented. The appendix includes a rat- feeding demonstration using dry foods, a chick-feeding demonstration, and demonstrations to show the value of specific nutrients designed for high school students. There is also a source of references listed. Single copy: 20 cents. The National Dairy Council, 111 North Canal Street, Chicago 1, Illinois. 14 pp. 1960.

JUVENILE DELINQUENCY (Pamphlet)

This non-technical pamphlet, titled "A Look at Juvenile Delinquency," gives a well-rounded presentation of the facts and approaches to solving the problem of juvenile delinquency. It places emphasis on the prevention of delinquency, points out that there is no single solution to the delinquency problem, and describes the wide variety of services that should be applied in helping the delinquent child. The booklet also includes a brief, annotated bibliography of the Children's Bureau's publications on juvenile delinquency. Single copy: 25 cents. U. S. Department of Health, Education and Welfare, Social Security Administration, Children's Bureau, Washington 25, D. D. 50 pp. 1960.

NUTRITION (Charts)

This set of seven charts, in color, 19 by 25 inches, presents the interpretation of food values in seven meals (two breakfasts, three lunches, two dinners) with the same meals improved by modifications as contrasts. These may be used in the school lunchroom as well as instructional materials in the classroom. A four-page teacher leader supplement is included with the set. 75 cents per set. National Dairy Council, 111 North Canal Street, Chicago 1, Illinois. 1960.

GENERAL HEALTH (Bibliography)

This listing, which consists of 22 selected books in the field of school health, also includes a variety of other selected references on school health. FREE. Department of Health, Education and Welfare, Public Health Service, Division of General Health Services. Public Health, Washington, D. C. Six pp. 1960.

POLIO (Pamphlet)

This pamphlet, titled "The Story Behind the Polio Vaccine," presents an account of the development of the poliomyelitis vaccine. It describes the beginnings of public interest in polio in the United States during the epidemic of 1916, the establishment of the National Foundation for Infantile Paralysis in 1938 by Franklin D. Roosevelt, a brief review of the important scientific investigations and research which led to the development of the Salk vaccine, Dr. Thomas Francis' study, a description of the field trial of the Salk vaccine as well as making the vaccine, and the support of the National Foundation, which now has an expanded program concerned with arthritis, birth defects (congenital malformation), virus diseases and central nervous system disorders. FREE. National Foundation, 800 Second Avenue, New York 17, N. Y. Nine pp. 1960.

NUTRITION (Poster)

This full-color, photographic poster is 18 by 28 inches, mounted with easel, presents the four major food groups as a basis for a daily food guide. The heading, in large letters, reads, "A Guide to Good Eating—use daily." The nutritional statements on this chart have been reviewed by the Council on Foods and Nutrition of the American Medical Association. $1.00. National Dairy Council, 111 North Canal Street, Chicago 1, Illinois. 1960.

NUTRITION (Pamphlet)

This booklet, entitled "How Your Body Uses Food," is designed primarily for the intermediate grades. The booklet, in four chapters, presents in an interesting manner, why and how the body uses foods for growth, energy and health. The full color cover, artwork, photographs and easy safe experiments with foods aid in making the booklet appealing and challenging to pupils. A four-page teacher's supplement accompanies the booklet. Single copy: 20 cents. Obtained from the National Dairy Council, 111 North Canal Street, Chicago 1, Illinois. 28 pp. 1960.

DRIVER EDUCATION (Booklet)

This booklet on safe driving is titled "The Art of See-Manship" and emphasizes the importance of keeping our vision shifting among these important zones: front, sides, rear, (using rear-view mirror), and keeping

the mind alert to the immediate driving problems, the road, your car, other traffic, pedestrians. Four colored illustrations on safe-driving are included. FREE. The Accident Prevention Department, Employers Mutuals of Wausau, Home Office: Wausau, Wisconsin. Four pp. 1959.

NUTRITION (Brochure)

This brochure, titled "Aids to a Health and Nutrition Program for School and Community," has been prepared "to present background information, steps that schools are finding effective in carrying out functional nutrition and health programs, and the services and materials that General Mills offers to aid in such programs." Part I includes the following topics: "Nutrition Education Emphasis Increasing;" "About the General Mills Program;" "Guiding Principles;" "Areas of Activity." Part II is divided into six areas: "Suggested Steps in Setting Up a Program of Nutrition Education;" "Recognize the Problem;" "Organize School-Community;" "Plan Ahead." Part III includes pictures, lists and describes the 28 kinds of instructional materials which General Mills offers. This is a useful resource material for teachers and others interested in nutrition education. FREE. Education Section, Department of Public Services, General Mills, Minneapolis 1, Minnesota. 16 pp. 1960.

GENERAL HEALTH (Book)

This book, titled *Guiding Children as They Grow: Between One and Twenty*, is edited by Eva H. Grant and consists of a collection of articles on child development taken from the National Parent-Teacher magazine. The book presents practical and useful information to both teachers and parents on the different phases of child growth and development from the pre-school age through the period of adolescence. Contributors include such noted authorities as Spock, Gesell, Gruenberg, Ilg, Hymes, Wolf and the Franks. Single Copy: $1.00. National Congress of Parents and Teachers, 1201 16th Street, N. W., Washington, D. C. 256 pp. 1959.

MENTAL HEALTH (Reprint)

This article is titled "How Teachers Can Build Mental Health" and should be of interest to both teachers and parents. The author points out the need to create a partnership between educators and psychiatrists and the importance of the multi-professional approach in the area of mental health. It explains the three roles the teacher must assume—that of imparting factual information, being the parent successor and the case-finder. It also emphasizes that, in order to fulfill these demanding roles, today's teacher must be an emotionally mature individual and must have the necessary training and understanding so necessary for coping with and accepting the responsibilities which teaching demands. Single copy: 10 cents. American Medical Association, 535 North Dearborn Street, Chicago 10, Illinois. 1960.

HYPERTENSION (Pamphlet)

This pamphlet, titled "High Blood Pressure," is written primarily for the person with high blood pressure and for the members of his family. It explains the kinds of hypertension, the leads which research scientists

have regarding the causes of high blood pressure, symptoms, emphasizes the importance of periodical, medical examinations, what your doctor can do, and the necessity of following your doctor's advice. The pamphlet also comments briefly on the research which is being conducted at present in medical centers throughout the country. Also, included in the last two pages, is an explanation of how the doctor takes your blood pressure, accompanied by pictures in black and white of the dial and mercury sphygmomanometers. FREE. American Heart Association, 44 East 23rd Street, New York 10, New York. 15 pp. 1960.

PUBLIC HEALTH (Book)

This book is titled *The Gentle Legions* and is a study of the major voluntary health agencies in the United States. The publication describes the histories of these organizations, their purposes and goals, how they function, their fund-raising campaigns, research projects and programs, and the lives of the people who have played major roles in some of these organizations. The last part of the book reveals the conflict between the local United Funds and some of these voluntary health organizations. $4.50. Doubleday and Company, Inc., Garden City, New York. 335 pp. 1961.

* * * * *

"HOW WE DO IT"

Continued from page 204

Health Services for Indigent Children Made Possible Through the Community Givers

Iowa City, Iowa, like many other communities in the United States, contributes to various welfare agencies through the Community Givers or what was more commonly termed the *Community Chest.*

The School Childrens' Aid Corporation is a recipient of this community charity. This non-profit tax-free corporation administers to the city's needy children in three areas: a school milk program, glasses and hearing aid program, and a dental program.

The organization and administration of this program is done through the school health program. The officers of the organization are the Director of Health and Welfare of the city schools and the School Nurses. The administration of the services is done through the school nurses who are cognizant of the needs of the school children in our city. Before assistance is given to any child, a case history is made by the nurses to determine the true needs of the child's family and ability to pay. Upon receiving a recommendation from the nurse who has made the survey (to render assistance in the areas mentioned above), the child immediately receives help in any area so recommended by the nurse.

There are two main advantages of this plan, namely:

1. Expediency
2. Time, which is often important in meeting emergency cases.

A financial report is made and presented to the Community Givers at the end of the year. This report is in detail showing every contribution to each child. The detailed report, however, is confidential so it will not embarrass any recipient or his family.

This past year our nurses helped the Community Givers prepare posters, plan and arrange store windows displays, etc. prior to the drive for raising funds.

In conclusion, I would like to say that I believe the people of Iowa City contributed more generously to the Community Givers because of the services rendered by the Corporation to its own needy children.

FRANK H. BATES, Director
Health, Physical Education and Welfare
Iowa City Community School District

* * * * *

• Southern Illinois University, Carbondale, will play host June 15–17 to the Eighth National Conference on Campus Safety.

Sponsored jointly by the National Safety Council's Campus Safety Association and SIU, the conference is designed for safety personnel, college administrators, personnel directors and college and university personnel concerned with the over-all campus safety program and its implementation.

* * * * *

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January, 1961

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*This chart of weights and ages for each height is based on a study made of 4300 children from kindergarten through the eighth grade in 1959 in an average income midwestern suburb.

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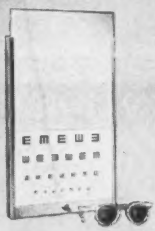

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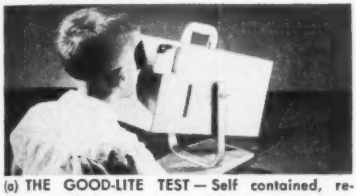

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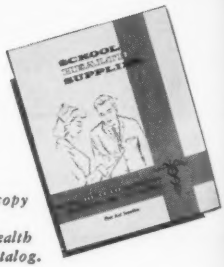

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